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ABSTRACT

A study examined flexible delivery modes that could be used to provide adult literacy and basic education (ALBE) to students in rural areas of Victoria, Australia. Telephone interviews were conducted with 29 students and 20 tutors and administrators involved in community-based programs, the 3CCC Airwaves Learning radio program, and off-campus tutoring arrangements. Factors identified as barriers to delivery of ALBE to students in rural areas included the following: limited program funding, lack of infrastructure to support innovative provision, difficulty of predicting student numbers in advance, and lack of advocacy from ALBE students. Flexible modes of delivery, especially audioconferencing (teleconferencing) and audiographics, were deemed effective in ensuring equal access to group provision and its benefits for students isolated due to distance or social/economic factors. A cost analysis established that audioconferencing programs giving students access to group tuition are a costly program delivery mode; however, the alternative is the absence of group provision. Minimizing the number of delivery sites and increasing the number of students at each site were recommended as strategies for reducing costs. The student and tutor interview questions are appended along with 1991 ALBE statistics and a case study of an ALBE audiographic conferencing numeracy class. Contains 20 references. (MN)

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FLEXIBLE DELIVERY OF ADULT LITERACY AND BASIC EDUCATION PROGRAMS

Report prepared for the State Training Board and the Adult Community & Further Education Board.

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Lois Drummond

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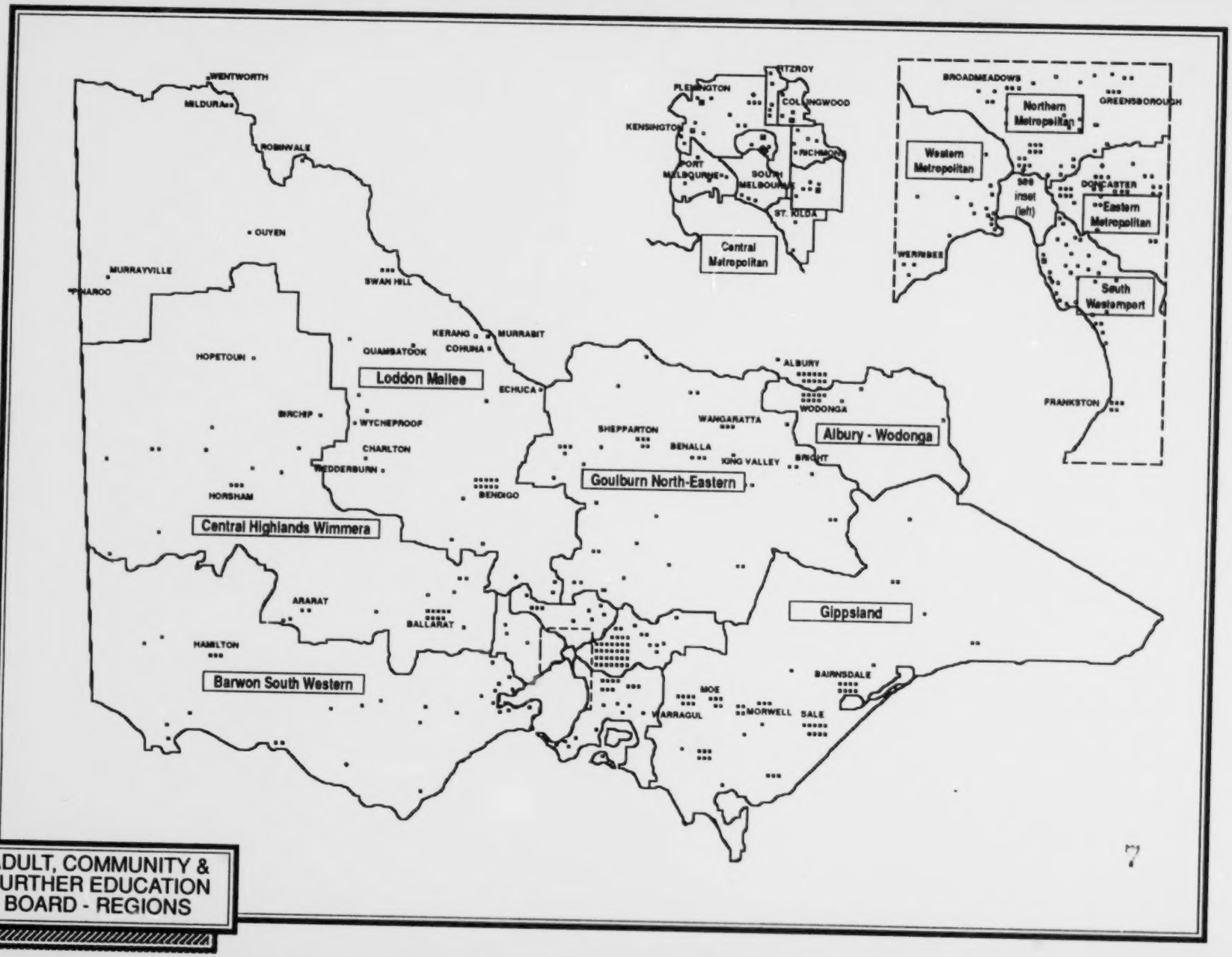

ADULT, COMMUNITY & FURTHER EDUCATION BOARD - REGIONS

LIST OF ACRONYMS

A.C.A.L	Australian Council of Adult Literacy
A.C.F.E.	Adult, Community and Further Education
A.C.F.E.B.	Adult, Community and Further Education Board
A.L.B.E	Adult Literacy and Basic Education
A.M.E.S	Adult Migrant Education Service
A.R.I.S.	Adult Basic Education Resource and Information Service
C.A.G.E.	Certificate in Adult General Education
D.E.B.I.T	Distance Education by Interactive Telematics
D.F.E.	Division of Further Education
D.S.E.	Department of Schools Education
O.A.C.F.E.B	Office of the Adult, Community and Further Education Board.
O.S.T.B.	Office of the State Training Board
O.T.F.E.	Office of Training and Further Education
R.A.L.B.E.O	Regional Adult Literacy and Basic Education Officer
R.O.L.C	Regional Open Learning Consortium
R.T.E.C	Regional Telematic Education Consortium
S.C.O.T.	Sunraysia College of TAFE
S.T.B.	State Training Board
T.O.C.C.A	TAFE Off Campus Co-ordinating Authority
V.O.L.N.	Victorian Open Learning Network
V.T.O.C.N	Victorian TAFE Off Campus Network

GLOSSARY

AUDIOCONFERENCING

Audioconferencing (a group telephone call) joins three or more locations into a common network which lasts for the duration of the particular event.

AUDIOGRAPHIC CONFERENCING

Audioconferencing is enhanced by the addition of a computer link. Max-fax-audio is one implementation of audiographic conferencing, another is Optel.

DISTANCE EDUCATION

Distance education has traditionally assumed the separation of teacher and learner in distance and time and the use of print-based correspondence materials to overcome this. This report recognises the need for flexible learning because lack of access can be due to restricted mobility, low economic status, a desire for confidentiality, lack of public transport as well as distance.

FLEXIBLE DELIVERY

The flexible delivery of educational programs indicates that a range of delivery modes is used. These may include the use of telematics, print-based material and face-to-face teaching.

FLEXIBLE LEARNING

Flexible learning is

---

the provision of education and training which maximises choices about the content, medium, time and location of learning, including negotiation of programs to suit the needs of learners.

(Centre for Flexible Learning)

FLEXIMODE

Fleximode is a combination of print-based correspondence materials and face-to-face delivery. It is used in some TAFE off-campus subjects.

LITERACY

Literacy involves the integration of listening, speaking, reading, writing and critical thinking; it incorporates numeracy. It includes the cultural knowledge which enables a speaker, writer or reader to recognise and use language appropriate to different social situations. For an advanced technological society such as Australia, the goal is an active literacy which allows people to use language to enhance their capacity to think, create and question, in order to participate effectively in society.

(Australian Council of Adult Literacy)

OPEN LEARNING

Open Learning is an approach rather than a system or technique; it is based on the needs of individual learners, not the interests of the teacher or the institution; it gives students as much control as possible over what and when and where and how they learn; it commonly uses the delivery methods of distance education and the facilities of educational technology; it changes the role of a teacher from a source of knowledge to a manager of learning and a facilitator. It justifies these measures by arguments of efficiency, cost effectiveness and equity.

(Johnson R., 1990)

TELEMATICS

Telematics is a term developed in educational circles to describe the electronically based equipment and the processes and strategies used to enable interactive teaching and learning between two or more geographically different locations. Audioconferencing and audiographics are two means by which classes can be taught by telematics.

FLEXIBLE DELIVERY OF ADULT LITERACY AND BASIC EDUCATION PROGRAMS

1. RECOMMENDATIONS

1.1 That flexible delivery is an effective form of program delivery and from 1993 ALBE budgets ought to reflect this. This funding needs to be ongoing or recurrent and part of the mainstream budget for program delivery, rather than one-off grants.

(Pages 4-7)

1.2 That flexible delivery of programs should continue to arise from a need identified at a local level and this process needs to be further developed and guaranteed.

(Pages 7-9)

1.3 That recurrent funding for flexible delivery include appropriate time allowances for tutors, support staff and administrators for program planning and delivery and for the documentation of practice. Such time allowances need to be 50% more than is currently available in ALBE programs.

(Pages 10-13 and 22-23)

1.4 That as curriculum materials are developed for flexible delivery they become part of the Adult Basic Education Resource and Information Service (A.R.I.S.) collection to ensure accessibility to practitioners.

(Pages 14-15)

1.5 That teaching and administrative staff have access to appropriate professional development, curriculum and technical support networks, equipment, facilities and venues.

(Pages 20-22, 24-26)

1.6 That the cross sectoral links being fostered by the Open Learning Network (V.O.L.N.) continue to be developed and enhanced to guarantee the co-ordination and management of planning, development and resources.

(Page 5)

2. INTRODUCTION

2.1 BACKGROUND TO THE PROJECT

In 1991 the then Division of Further Education (D.F.E.) and the State Training Board (S.T.B.) recognised a need, developed a brief, sought tenders and the submission from the Loddon Campaspe College of TAFE was deemed most worthy. A project officer, the author of this report, was appointed to work with a management group. This group included representatives of the Loddon Campaspe College of TAFE, the Loddon Mallee Regional Council of Adult, Community and Further Education (A.C.F.E.), the La Trobe University College of Northern Victoria and the Department of Schools Education (D.S.E.).

Given the time taken to prepare this report significant changes have occurred. The former offices of the Adult, Community and Further Education Board and the State Training Board have been combined into a single agency, the Office of Training and Further Education (O.T.F.E.).

The focus of this report is the flexible delivery of adult literacy and basic education programs. Particular attention is paid to the efficacy of flexible delivery in rural Victoria where distance and isolation can be barriers to equity of access to further education and training.

Rural areas of Victoria are characterised by low population density. In contrast to other parts of Australia where there are often vast distances between population centres, in most parts of rural Victoria small towns or hamlets are relatively close together. However, these small towns have few, if any services. The isolation is therefore not just a result of distance from services but can be due to a lack of mobility, low economic status or the absence of public transport.

The aim of the research project was to document flexible delivery tutors' best practices and student perceptions of the programs and to place these within the context of recent evaluative reports of the flexible delivery programs conducted in the areas of adult literacy and basic education and of the Victorian Certificate of Education (VCE) in Victoria. This report is an attempt to bring together this information with data which has been gained through further qualitative research.

2.2 ADULT LITERACY AND BASIC EDUCATION

This report uses the Australian Council of Adult Literacy's definition of literacy. (see Glossary)

As well as improving reading, writing or numeracy skills, adult literacy tuition aims to build up self-confidence and to encourage students to become more independent members of society. Some adults who seek tuition wish to improve their employment or promotion prospects or to re-enter formal education.

Adult Literacy and Basic Education (ALBE) programs offer tuition to adults over 15 who have left school and who have skills below the Certificate in Adult General Education (C.A.G.E.) exit Level 4. Study at Level 4 could articulate to VCE or other courses which do not have VCE as a prerequisite. Particular student target groups in Victoria include job seekers, people of aboriginal descent, women, physically or intellectually disabled people and rurally isolated people.

Tuition is available in small classes in TAFE colleges or in community settings such as neighbourhood houses or community learning centres. Staff responsible for community based provision are usually part-time or sessional teachers. In some communities volunteer tutors work individually, and sometimes privately, with students.

3. CONTEXT OF THE RESEARCH

3.1 HISTORY OF THE DEVELOPMENT OF FLEXIBLE DELIVERY IN ALBE

The development of the flexible delivery of ALBE programs can be traced from 1985 with the establishment of the Distance Literacy Steering Committee with representation from the Victorian TAFE Off-Campus Network (VTOCN) and the then Victorian Adult Literacy Council (VALC). In 1986 the steering committee promoted two pilot programs. A student-centred project was conducted in the TAFE Northern Metropolitan Region. In Gippsland a group of volunteer tutors was given their initial training via teleconferencing (now known as audioconferencing). During 1987 eleven distance literacy programs were conducted. Six programs provided tutor education to volunteer tutors who were involved with student tuition on an individual basis. These programs used the Distance Literacy Tutor Training Kit which was developed by Peter Waterhouse. Five programs provided literacy tuition to students in their homes using teleconferencing and materials provided by the group tutors. These programs were well documented and evaluated in a report.

(Jones 1988)

Although Distance Literacy Tutor training programs were conducted in several country regions between 1988 and 1991, the ALBE field, both the TAFE colleges and community based providers, have moved slowly toward the flexible delivery of programs.

3.2 VICTORIAN TAFE OFF CAMPUS NETWORK (VTOCN) PROVISION

In 1991 the VTOCN offered four "Distance Literacy" programs which were to be delivered in a flexible mode with some audio-conference support. These were Literacy Tutor Training, Second Session Student Support, Road Rules and Telemaths (Numeracy Tutor Training).

Student numbers for 1991 were very low. (See Appendix 3) (Also included in these ALBE statistics are students who enrolled in TAFE Off-Campus Access and Bridging subjects which were delivered via the traditional print-based correspondence mode.)

3.3 COMMUNITY-BASED PROVISION

In community based ALBE provision, that is programs which are conducted by providers such as learning centres or neighbourhood houses, the flexible delivery mode is rare. However since 1990 there have been some isolated examples of innovative program delivery. In 1991 fewer than 60 students were taught by this mode. Our research suggests that at the most optimistic level students in flexible delivery programs represented only .558% of the total ALBE student contact hours for 1991.

3.3.1 Second Session Student Support Programs

These programs were based on the model developed by VTOCN whereby up to 10 adult students already undertaking literacy tuition with a tutor on a 1:1 basis were linked up by audioconference from their own homes, with a group tutor. Two such programs have been conducted from the Kerang Learning Centre in the Loddon-Mallee region of ACFE. These programs were a joint venture with VTOCN, which was the funding body. In 1990 and again 1991, a ten week program with six students participating was conducted.

The Wimmera Adult Literacy Group, in the Wimmera-Central Highlands region of ACFE conducted two six-week Second Session Student Support programs in 1991. A total of 8 students were enrolled.

3.3.2 Workplace Basic Education Pilot Project

This project was conducted by the Continuing Education Centre, Albury-Wodonga in North Eastern Victoria. The aim was to deliver workplace basic education to thirty nine employees of the Department of Conservation and Environment in small scattered, rural workplaces in a flexible manner. An evaluative report which outlines the issues involved in the planning and delivery of the program, has been published. (Butcher, 1990)

3.3.3 ALBE Numeracy Program

This program which commenced in May 1992 is being conducted in the Loddon-Mallee ACFE region. A group of students with the group tutor at Charlton is linked to a group of students at Wedderburn, by audiographics. Five students are participating. The results of a pilot project at the Sunraysia College of TAFE (1992) which trialled the use of audiographics with a basic education class in 1991 indicated that there was no significant difference in the amount learnt, compared to a conventional lesson.

3.4 RADIO LITERACY

"Airwaves Learning" (Adult literacy and numeracy) commenced in 1991 and is broadcast on 3CCC a community, FM radio station transmitting from Harcourt, near Bendigo in Central Victoria. Three, one-hour programs are broadcast each week. The program aims to meet the needs of adults who cannot attend ALBE classes and to increase awareness of ALBE provision. The very rationale of presenting literacy on air - the stigma of illiteracy in the community and the consequent need for people to remain anonymous - is such that it is claimed by the presenter that data relating to student numbers and the programs' effectiveness is very difficult to obtain.

3.5 RECENT DEVELOPMENTS

3.5.1 Centre for Flexible Learning

The establishment of the Centre for Flexible Learning is a recent initiative to provide a clear focus for the future development of system wide delivery strategies. In its initial phase, operating with a designated grant from the Training Development Division, Office of the State Training Board, the Centre is providing advice on policy and planning issues.

3.5.2 Ministry Telematics Support Network (1990-1992)

The Telematics Support Network was established to meet the increasing demand, across all sectors of the then Ministry of Education for specialist advice on the use of telematics for education and training programs. The Network Project team has supported the cooperative expansion of the use of telematics in alternative modes of curriculum delivery in all sectors. One outcome of the work of the Project team was the publication of "It doesn't just happen..." which gives details of the Project.

3.5.3 Victorian Open Learning Network (V.O.L.N.)

Prior to the winding up of the Ministry Telematics Support Network it proposed the establishment of the V.O.L.N. An interim committee has been established in 1993 and is, among other things, considering pursuing cross-sectoral linkages which may include the establishment of open learning centres across the state. The Ministry Telematics Support Network made considerable progress in establishing cross-sectoral networks in country Victoria in 1991, these regionally based consortia include the Loddon-Campaspe Mallee Regional Telematics Education Consortium (R.T.E.C.). In other regions Regional Open Learning Consortia (R.O.L.C.'s) have been established.

Such developments are a reflection of a continuing interest in flexible delivery modes in order to meet the needs of students who cannot access traditional face-to-face tuition. However, until now budgetary constraints have meant that the interest has not yet translated to provision.

4. METHODOLOGY

4.1 DATA COLLECTION

In order to identify the flexible delivery programs which could provide relevant data for this study the Regional Adult Literacy and Basic Education Officers (RALBEO's) and TAFE Access Co-ordinators were written to. While this brought very little response, contact had already been made with tutors who had conducted distance literacy programs (tutor training and second session student support) and the presenter of 3CCC's Airwaves Learning. Further information was gathered through following up contacts in the further education field, both practitioners and administrators and by reading relevant publications (see reference list). Other flexible delivery programs, although not all ALBE provision, were included as sources of data, either through tutor interviews or evaluative reports (see reference list).

The major source of data for this report however was telephone interviews. Twenty-nine students and twenty tutors and administrators were interviewed (see Table 1). Two interview schedules (see Appendix 1 & 2) were developed based broadly on the following areas:

- educational objectives
- student expectations and outcomes
- time commitment and additional help and support
- reactions to the mode of delivery
- teaching/learning strategies
- resources.

All students and tutors asked were willing to be interviewed.

Also included in the interview sample are TAFE Off Campus tutors and students (see Table 1). Off Campus provision in Access and Bridging subjects appears to fill the gap in provision for a minority who cannot access other ALBE provision. Whilst this project does not have a brief to evaluate Off Campus studies, these interviews provided some useful comparative data. The traditional, print-based correspondence style courses are seen by practitioners as a contrast to the more innovative flexible delivery programs.

TABLE 1

Details of Interview Sample

	Community Based programs	3CCC radio program	Off-Campus	Other	Total
Students	14*	3	12		29
Tutors	7**	1	7	5#	20

* (second session support programs)

** (tutors of both ALBE and VCE programs were included)

(includes 2 tutors of South Australian program, 3 administrators)

4.2 LIMITATIONS OF THE PROJECT

Due to the limited number of ALBE programs delivered in a flexible mode the interview sample was small. In the ALBE sector, delivered both through community provision or TAFE, the lack of knowledge and awareness of modes of flexible delivery has meant that its adoption has been slower than in the DSE or in other areas of TAFE activity. Technological equipment can be found in schools and TAFE colleges, particularly in rural areas. Likewise, staff in these sectors have the responsibility to explore the potential of technologically enhanced program delivery and to provide support for practitioners who are engaged in this kind of innovative flexible delivery of programs. However in the community based ALBE sector, program funding is very limited, teaching staff are almost without exception sessional, and most community providers lack the infrastructure to support innovative provision. Another factor which has hindered ALBE development is the difficulty of predicting student numbers in advance and the lack of advocacy from ALBE students, or others on their behalf, for access to tuition, often because of ignorance of the possibilities of such tuition.

5. DISCUSSION AND IMPLICATIONS

5.1 ESTABLISHING AN APPROPRIATE LEARNING ENVIRONMENT

The flexible delivery of ALBE programs can be an effective means of ensuring equity of access to group provision for those who are isolated due to distance or to social or economic factors.

5.1.1 Access to Group Provision

Flexible modes of delivery, in particular audioconferencing and audiographics, have made interactive tuition between two or more locations in real time available to students who live in small communities where there are insufficient student numbers to meet minimum enrolment requirements and to those for whom there are other barriers to participation.

TABLE 2

Reasons For Participating in Flexible Delivery Programs

	REASON	NO. OF STUDENTS
1.	Distance from appropriate group provision.	10
2.	Family commitments.	2
3.	Disability → inability to drive.	nil
4.	Desire for confidentiality.	2

In Charlton and Wedderburn in the Loddon Mallee region of ACFE in 1992, where low student numbers meant that ALBE group provision in numeracy was not viable at either centre, two small groups of students have been linked by audiographic conferencing to make one viable group.

5.1.2 The Value of Learning in Groups

Individual learners working with print-based correspondence materials or even working on a 1:1 basis with a tutor are denied the interactivity and peer support which are important aspects of participating in group tuition.

The responses of students who were linked up to ALBE audioconferencing programs from their own homes, indicated that the opportunity to relate to other students was a positive outcome of participating in the program.

Some student comments, when asked how they felt about being in a group, were:

- *"I always felt self-conscious that I was different. Then to hear other people talking... I realised there are other people with the same problem."*

- *"It helped you to realise other people have the same problems as I have. Some were worse, some were better."*

- *"It was different. Good to hear other people's comments."*

- *"... Interesting. The different people surprised me ... our needs are all different, yet similar."*

- *"I discovered I was really doing a lot better than some other people in some areas."*

- *"You could hear other people... didn't feel as if you were isolated."*

- *"Its good to hear other people's problems."*

Such responses suggest that students' self esteem and confidence increased as they realised that they were "not the only one".

One student whose low self esteem meant that confidentiality was of paramount importance to her, insisted on using her second name during the teleconferences, and was not prepared to collect written materials which had been sent by facsimile to the local Post Office.

This student commented:

- *"It was good for me at the time. I couldn't have coped with face-to-face. I could now."*

Another student for whom this program was the stepping-stone to face-to-face group tuition, said:

- *"I was blushing on the phone. I was even embarrassed talking to people I didn't know on the phone... I wouldn't have sat down with them. There's no way you could have got me in the room then. I wouldn't admit it to anyone. Now I would."*

These findings are consistent with those of Anderson in his report on 'teletutorials' - a specific term used to describe the audioconferences conducted by the TAFE school of Aboriginal Education in South Australia. There a group of students in a country or isolated situation come together in a classroom for a weekly link-up with their lecturer, who is located elsewhere.

Some of the benefits of teleconferencing are seen by [the tutor] as being an opportunity for students to study close to home and to provide tuition in subjects not otherwise available in country areas, because of a lack of skilled teachers or resources, or to supplement existing courses. Teleconferencing is also able to give students both support and immediate feedback, from teachers and other students. It gives students the opportunity to discuss their ideas and to voice their opinions in a familiar and non-threatening environment. The maintenance of anonymity and confidentiality can be very important, especially for adult literacy students who have sought to hide their lack of literacy, perhaps for many years. (Anderson, 1991)

5.1.3 Additional Support Structures and Student Retention Rates

Although the immediate feedback and support available to students in an audioconferencing or audiographic conferencing class is valuable, the additional support structures available to them can also be an important element of the program.

Audioconferencing Classes

TABLE 3

Student Second Session Support Program

Student responses to: What extra help and support did you receive, during the program?

Additional help from	Group Tutor	1:1 tutor	Moral Support of other students	Relative or Friend	None
Number of students	2	9	1	2	2*

* These students' reasons were:
- The work wasn't too hard.
- I didn't need help.

Volunteer tutors who were working on an individual basis with the students were an important source of extra assistance to the students (see Table 3).

Group tutors also sought assistance and support from the 1:1 tutors who were matched with the students in their programs.

Prior to the commencement of the program I met each tutor to discuss the distance program and their student's involvement in it. They were able to provide me with further background information about the students. Telephone calls to the tutors during the 10 weeks helped me to monitor the outcomes for their students. During the 10 weeks of the conferences I relied on the tutors to support their students in their weekly preparation.

(Drummond, 1990)

The audioconferencing tutor in the Wimmera Adult Literacy Group's (1991) program conducted interviews with the 1:1 tutors as a part of her evaluation of the program.

Although not acknowledged by the students interviewed in this study, there is evidence that additional support provided by the group tutor is also important. One of the successful elements of the

teleconferencing programs which were conducted with adult literacy basic education students and volunteer tutors in 1987 and 1988 was the support and encouragement offered by the tutor outside of the teleconferences.

The four teleconference group tutors offered support and encouragement to the participants outside the teleconference using two or more of the following:

(i) face-to-face meetings during the project (where possible)

(ii) weekly newsletter

(iii) personal letters

(iv) personal phone calls

Consistent backup and contact with each student was considered crucial to the continuing participation of students.

(Jones, 1988)

Classes which link small groups of students

In the programs which deliver tuition to a group of students at a site which is remote from the teacher, a support person is usually with the group, at least in the initial stages of the program.

- *"In the teletutorial programs conducted by the TAFE school of Aboriginal Education in South Australia, an on-site instructor, if possible a member of the local community, was present throughout the program."*

- *"In East Gippsland where adult VCE is delivered to groups of students at outreach centres from the East Gippsland Community College of TAFE a support person is usually present for the first three sessions. Once the group was established the peer support within the group became an important element of the program."*

- *"In the VCE mathematics class conducted by the Kerang Learning Centre and the Pyramid Hill Neighbourhood house, linking two small groups by audiographics, a support person was present at the remote site for fourteen of the twenty weeks of the program. In retrospect the support person felt that she should have withdrawn from the program earlier to encourage the peer support within the group to develop."*

Although the role of a support person is important, particularly in the early stages of the program when a trouble shooter may be needed, the peer support which develops within the group can also be a significant feature of the program.

TAFE Off Campus Provision

The introduction of courses which provide the learner with audioconference support, such as the Second Session Student Support Program and the recently published 'Road Rules Learner Reader Course' (1992) indicates that a wider use of flexible delivery modes in TAFE Off Campus provision is developing. Fleximode provision in the VCE studies is also a successful mode of delivery. However the overwhelming majority of ALBE students who were enrolled in Off Campus studies in 1991 were studying independently via the print-based correspondence mode (see Appendix 3). Contact with tutors is via the written material submitted - only three of the students interviewed had telephoned their tutors for assistance on one or two occasions.

Some Off Campus tutors interviewed had reservations about this mode of delivery -

- *"No student's needs are ever totally met... Off Campus are more at risk than others."*
- *"The weakness in Off Campus is that you do not interview the student yourself."*
- *"Off Campus isn't suited to the very basic student... who can't express themselves on paper."*
- *"Some students find it very difficult."*

In comparison with the relatively high student retention rates in ALBE flexible delivery programs the student retention rate for TAFE Off Campus studies is low (see Table 4). As students who drop out are not followed up by the Off Campus Centre at which they are enrolled, no data is available to explain the reasons for the low retention rate.

TABLE 4

Retention of Students

		Percentage of Total Students enrolled who completed program
#VTOCN Distance Literacy Programs 1987-1988	Student Programs	72%
	Tutor Programs	80%
Student Second Session Support 1990- 1991		80%
*TAFE Off Campus Provision 1988-1989		23% **

* Patrick K., 1992.
** % pass rate.
\# Jones N., 1988 page 86

Although the total student numbers in the sample for this report are small the high retention rates are encouraging. Reasons students gave for leaving the programs included gaining employment, personal reasons, and:

- *"I couldn't cope with the group, it was too much like school."*

It is likely that the high student retention rates for this report can, at least in part, be attributed to the support structures which are an important element of ALBE programs.

Other evidence which supports the assertion that there is a relationship between extensive student support and high ALBE retention rates come from Queensland's Distance Education College.

Correspondence delivery to ALBE students is enhanced by audio tapes and individual tuition. The distance literacy course has one of the highest retention rates at the college.

(Good Practice №4, 1989)

In Victoria the Adult Migrant Education Service (AMES) operating from the Centre for Distance Learning at Box Hill endeavours to provide tuition for students for whom English is their second language.

AMES claim to have a student retention rate of 75%. Extra support is available to students.

- *"Telephone contact is encouraged. A tutor will often call a student. If necessary a telephone interpreter service is used. The material is learner centred and encourages participatory learning... There is a lot of encouragement to return work every week or fortnight. Students are followed up after a month if no work is submitted."*

The results of a recent project highlights the importance of the extra support structures

- *"The Open Learning (Computing) Project has been a run-away success in remote areas because of the project's concentration on supporting each learner with mentor/tutor support through easily accessible technologies."*

  (Tom Aurman, Project Manager, Address to TAFE CDN meeting, School of Mines Ballarat 19/08/92)

The extra support given to students in flexible delivery program by the group tutor, 1:1 tutors or others appears to have a significant influence on the success of the programs.

5.2 CURRICULUM ISSUES

Ideally the basis for developing curriculum in ALBE programs is that of negotiation. Students are interviewed on enrolment and an important element of the initial interview is assisting students to develop their goals for participation and their expected outcomes. Students can have continued input into the program if they are involved in ongoing evaluation.

In the Second Session Student Support programs conducted in 1990 and 1991 time was set aside at the end of each session for evaluation. Discussion questions encouraged the students to reflect on their learning and to develop their short term goals. Questions included:

- How did tonight's session go for you?
- We are now half-way through the program, what have you achieved so far?
- What else would you like to achieve?
- What do you know about reading which you didn't know when the program commended?

I valued the feedback from the students and endeavoured to respond to it and to address their strengths and weaknesses as the program progressed. Within my broad guidelines there was room for flexibility in my weekly planning. (Drummond, 1990)

The curriculum for these programs was developed according to student needs and interests, with written materials and audio tapes prepared and sent out at regular intervals.

Two of the successful elements of the distance literacy programs in Jones' report were the use of student-centred or theme-based materials and the motivation of students. Similarly a tutor who has been involved in the teletutorial program with groups of aboriginal students in South Australia since 1986 believes that:

- *"If the aboriginal people come up with a need (that can be met by the program) they feel they own the program and motivation is stronger."*

In contrast to the technology-enhanced delivery traditional print-based Off Campus studies do not allow for as much flexibility. Only one of the tutors interviewed found that she was able to send out additional materials to meet individual needs.

The interaction in programs delivered by a flexible mode provides the opportunity to develop a student-centred approach to curriculum development, where the focus is on the learner.

However, tutors (Table 5) supported the view that the lack of published curriculum materials developed specifically for use in this mode was a negative for them in delivering programs by audioconference. As ALBE curriculum is being developed in accordance with the Certificate of Adult General Education (C.A.G.E.) framework it seems appropriate that some materials which are suited to flexible modes of delivery be made available. This would reduce the time commitment for flexible delivery tutors while still allowing them the flexibility to negotiate. In the TAFE sector some excellent materials for use in audioconferencing programs have been developed, specifically in the areas of tutor training and road rules. (See Resource list).

5.3 TEACHING/LEARNING STRATEGIES

5.3.1 Establishing A Rapport

The challenge of establishing a comfortable, relaxed learning environment is more difficult when teaching in the flexible mode than in a conventional face-to-face class situation. Some practitioners have found that an initial face-to-face meeting will build up rapport and help to facilitate a desirable learning environment.

In the pilot 'Telemaths' program conducted by audioconference in 1990 the tutor insisted on the first meeting being face-to-face.

- *"When you are teaching maths there is enough anxiety dealing with that without technical anxiety as well."*

The results of the Bright/King Valley Flexible Learning Project where VCE was taught by audiographics indicate that participants would have valued an initial, face-to-face meeting.

It was argued that meeting and socialising with those who would be on the other end of the telephone line meant the class discussions would proceed more freely earlier in the course.

(1991)

The tutor of the Loddon Mallee Second Session Student Support program reported that

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The students were at a considerable disadvantage not having met each other prior to the program. Had such a meeting been possible it is likely that a productive group learning environment would have been established much sooner.

(Drummond, 1990)

However, the lack of a face-to-face meeting was not considered a problem by two other tutors interviewed -

- *"I sent out a map and I encouraged students to talk about themselves and where they were. A face-to-face meeting may not have helped much, students were fairly nervous."*

- *"Initially it was perhaps good that we hadn't met, we made an effort to find out about one another and that was a good thing, people described themselves Using a fax machine to send photos was good too. We met after six months."*

Eight of the fourteen students interviewed indicated that they would have welcomed a face-to-face meeting. Mid-way through the program only three students of those interviewed had met other participants, while all but two had met their tutor.

The results of this study indicate that the opportunity for participants in flexible delivery programs to meet prior to the commencement of the program or part-way through could be considered a contributing factor to the development of a comfortable learning environment.

5.3.2 Planning and Time Management

An audioconference is an intensive form of teaching and requires prior preparation and planning and a very structured approach to make the most of the time spent on-line. This is supported by the experiences of tutors in the Student Second Session Support Program.

The success of each teleconference hinged on the prior preparation of all participants. In a face-to-face class the teacher can alter the focus of the lesson if students are not well prepared or if aspects of the planned lesson need clarification - sometimes I had to defer our discussion to the following week and include relevant material in the next letter to students.

(Drummond, 1990)

Mailouts for a session had to be in Horsham for typing... (on time) to ensure that students received the mail out (letter, agenda, extract, puzzle etc.) early in the week thus giving time to go over work with their tutors.

(Wimmera Adult Literacy Group, 1991)

"Participants need to have materials in front of them and need to be prepared for the teletutorial... with papers in front of them, you can talk them through things - they can refer to them if they forget, and for follow up, especially with maths."

The use of the computer link-up in audiographic program delivery allows for more flexibility in lesson structure and content as the computer serves as an interactive whiteboard. Transmission of written materials by facsimile further enhances the flexibility of the delivery.

5.3.3 Length of Lesson

The length of lessons conducted by audioconference varies:

- ALBE Student Second Session Support Programs - one hour.
- Bright/King Valley Flexible Delivery program - initially the study centres were linked for three hours. Because the students appeared to be having difficulty concentrating for this period of time, a more flexible approach was used. The King Valley students came on line for a shorter period of time. During the off-line time students had small group discussions in each study group.
- In the VCE provision to outreach centres in East Gippsland the audio link may be open for three hours but a flexible approach has been adopted as in the Bright/King Valley program.
- In the Telemaths pilot tutor training program the audioconference time was reduced from 3 to 1½ hours when 3 hours was found to be too long.
- The Pyramid Hill - Kerang VCE maths class is linked by audiographics for 1½ hours.
- In the programs conducted by the TAFE school of aboriginal education in SA, the audio link is made for one hour, although the students are committed to a total of three hours study time each week.

The experiences of practitioners in flexible delivery programs indicates that the time spent on-line needs to be well planned. ALBE students participating in audioconferences need to be prepared, receiving written materials prior to the session. The time on-line will vary according to the needs of the group but where possible a flexible approach is desirable.

5.3.4 Strategies to Encourage Interaction

One of the greatest advantages of the use of audioconferencing is that it allows for interaction to take place, in real time, as in a face-to-face lesson.

Tutors have found that the most effective strategies for use during audioconferencing program delivery are those which encourage and facilitate interactivity. Specific strategies which have been used successfully in ALBE audioconferencing programs include -

- co-operative problem solving in numeracy
- cloze activities
- role play
- shared reading
- discussion of a common text.

One of the results of the experiment in the use of the audiographic conferencing mode in the Sunraysia College of TAFE was:

The lesson on summarising was suited to the Audiographic ... This mode of teaching is suited to situations where a high level of interaction is required. (1992)

The above comments are consistent with Dean and Hosie's (1985) conclusion

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The greatest asset of teleconferencing is, of course, its interactive capabilities. The system works best when interaction is encouraged. One-way lecturing is more appropriately delivered by audio tape, videotape or print material... Interaction through participation is the key to effective learning. (1985)

Tutors reported developing techniques to encourage the full participation of all members of the group, these included -

- *"I had a little sheet with names on it. Tick if they spoke. I could see at a glance who had contributed and who had not."*
- *"Sometimes I would direct a question to a person if she/he didn't contribute much."*
- *"I used directed questioning a lot more in the beginning when we didn't know each other well."*
- *"Over the telephone everyone has an equal opportunity to answer. You can put people on the spot without knowing it but you don't really embarrass them because they are not confronted by you, there is no shame involved."*

One student commented -

- *"At school there was always the bright ones and then the ones that got pushed out a bit, whereas with a teleconference you are all equal - all get a chance to have a say."*

The challenge for teachers using the audioconferencing mode is to encourage interactivity by using appropriate strategies, so maximising the potential of this mode of delivery.

5.4 MODES OF DELIVERY POSITIVES/NEGATIVES

5.4.1 Responses to Audioconferencing as a Delivery Mode

TABLE 5

Responses to Audioconferencing

Student Interviews

POSITIVES	№ OF RESPONSES
Improved self esteem.	5
Opportunity to help learn from others.	4
Writing improved.	3
Developed confidence using the phone.	2
Better oral expression.	2
Gave 1:1 tutor and students more ideas.	2
Improved concentration.	2
Can be confidential.	2
Relaxed, not like class.	1
Doing more reading.	1
Everyone has a say.	1
Continued with other classes.	1

NEGATIVES	№ OF RESPONSES
Hard, because I hadn't met others.	4
Didn't benefit, other students more basic.	2
Didn't like telephone, like to see who I'm talking to.	1
Holding the telephone receiver for one hour.	1
Technical problems (poor line).	1
Had difficulty reading class materials.	1

Tutor Interviews

POSITIVES	№ OF RESPONSES
Students were committed to audioconference.	2
Students willing to talk and to help each other - Peer support.	2
Students maintained confidentiality.	2
Allowed students to take risks.	1
Ensured prior preparation - good teaching.	1

NEGATIVES	№ OF RESPONSES
Lack visual cues, have to assume a lot.	3
Medium didn't suit very basic students.	2
Lack of face-to-face meeting, students' reluctance to send photos.	1
Lack of interaction.	1
Group very small.	1
Spontaneous laughter difficult.	1
Lack of curriculum materials developed for use in this mode.	2

The responses given in Table 5 highlight the importance of the peer support and improved self esteem which the audio link-up developed within the group of students who would otherwise have been denied access to group tuition. Similar positive student responses to audioconferencing were noted in the evaluation of a trial program where two small groups of adult learners were linked for a bookkeeping class.

Several students appreciated the interaction and support of fellow students as well as different points of view that resulted from the combining of the two groups. Some students said the teleconferencing made them work together as a team.

(Linking Small Groups of Learners, 1991)

The lack of visual cues during an audioconferencing class presents a challenge for the tutor. The information available (see Table 5) indicates that the opportunity for a face-to-face meeting would be welcomed by students and tutors alike.

5.4.2 Access to Facilities and Technical Equipment

Two models have developed in the flexible delivery of ALBE programs.

- Programs linking students in their own home by audioconference are ultimately the most flexible as the only requirement is access to a telephone. Hands-free telephones are available, on loan for students in classes in the Wimmera-Central Highlands and Loddon-Mallee ACFE regions. Facsimile machines are also available to programs in the Loddon-Mallee.

- The audiographics delivery model requires access to facsimile facilities and a computer and modem may also be used. Venues need to have a second telephone line to allow the audio and graphic links to occur simultaneously. As most potential and actual clients in the Loddon-Mallee ACFE region do not have access to these facilities classes have made use of schools as venues for classes. This highlights the importance of cross-sectoral co-operation.

An excellent example of cross-sectoral co-operation has occurred in Gippsland where the East Gippsland Community College of TAFE has pioneered the use of audiographics in adult education, although this has included little ALBE provision. An audioconferencing bridge is used to link up to five remote sites or outreach centres. The students meet at primary or secondary schools, TAFE outreach centres and sometimes Neighbourhood houses. Most sites are well set up with two telephone lines, audioconferencing, computer and facsimile facilities.

The Bright/King Valley Flexible Delivery Program (1991) provides another example of successful cross-sectoral links.

There were excellent links and co-operation between the community adult education providers and the schools in both Bright and the King Valley. This involved the use of facilities, equipment and a teaching venue.

Despite the successful cross-sectoral co-operation which already exists and the potential for further sharing of resources and expertise some problems have arisen from using school-based equipment after normal school hours.

The experiences of the Charlton-Wedderburn ALBE numeracy class and the Bright/King Valley Flexible Delivery Project (Page 17) indicate the problems likely to be faced:

- telematics expertise of D.S.E. staff is not always available
- facsimile machine locked in main office
- heating/cooling not operating
- personal security of sole participants
- inappropriate furniture in primary classrooms.

If the development of the flexible delivery of programs by community-based providers is to keep pace with that in the TAFE sector and schools, the need for access to appropriate facilities and expertise must be recognised. The further development of the Interim Victorian Open Learning Network and the existing RTEC and ROLC's in country regions would appear to be an effective means of facilitating cross-sectoral co-operation.

5.5 STAFF TRAINING AND SUPPORT

5.5.1 Time Commitment

Where it has been possible to offer the flexible delivery of ALBE programs as an option for those for whom there are barriers to participation in face-to-face classes, it has been largely due to the dedication of highly committed tutors and administrators. Such programs require a considerable time commitment from the staff involved and much of this has been given voluntarily.
(see Table 6)

TABLE 6

Time Commitment of Tutors in ALBE Flexible Delivery Programs

Program	Mode of Delivery	Paid hours, per one hour on-line	How much time spent?
Second Session Student Support 1.	Audioconferencing	2	I had made a personal commitment, I was prepared to spend more time.
Second Session Student Support 2.	Audioconferencing	2	Many more hours I was breaking new ground, I wanted to make it work.
ALBE Numeracy	Audiographics	2	Many, many more hours.
ALBE tutor training	Audioconferencing	2	Half a day, you need to be super organised.

Tutor responses indicate that the extra time was taken up by various tasks which included:

- setting up the program, which could include making initial contacts with students and their 1:1 tutors
- maintaining contact with 1:1 tutors
- personal phone calls to students
- written responses to work submitted
- developing curriculum material
- booking audioconference calls with Telecom Conferlink
- liaison with school personnel
- evaluation of program.

As small community based providers lack the infrastructure to provide full administrative support, tutors will often perform tasks which would otherwise not be their responsibility, such as liaison with schools re use of facilities and equipment. ALBE tutors are usually part-time or sessional workers and professional development activities will often be attended in their own time. The input of voluntary 1:1 tutors and support persons at the remote site (also often voluntary) is significant and a valuable element of the success of flexible delivery programs. A case study of the Loddon-Mallee numeracy class delivered via audiographics (see Appendix 4) illustrates the considerable time commitments made by personnel involved in an innovative program, much of which was unpaid time.

The significant contribution of the administrative staff in community based providers also needs to be recognised. In the evaluative report of the Bright/King Valley flexible learning project (1991) the list of roles and responsibilities undertaken by local organisers at each site reflects their importance.

The tasks undertaken by the Bright organiser included:

- organisation of program
- publicity/advertising
- counselling and enrolment of individual students
- teacher recruitment and support
- in class support to teacher and students
- assisting with establishing links with King Valley
- maintaining links with other VCE teachers and tutors.

In setting up and providing ongoing support to the VCE Unit 1 Space and Number program delivered via an audiographic link between Pyramid Hill and Kerang in 1991 the co-ordinator of the Kerang Learning Centre estimates that her time commitment during the 20 weeks of the program was at least 2½ hours per week plus initial planning and implementation time. She estimated that 25% of this was unpaid time.

If flexible delivery modes are to become an accepted form of ALBE provision, programs need to be adequately funded. The innovative nature of these programs and the additional demands placed on tutors and administrators, especially in community based providers, where staff are often part-time must also be recognised and funded. Appropriate time allowances for administrators and tutors for the delivery and subsequent documentation of their good practice would encourage other practitioners to explore innovative modes of delivery.

5.5.2 Professional Development

The importance of professional development for staff using flexible delivery was emphasised in a report of the House of Representatives Standing Committee on Employment, Education and Training, published in 1989.

Training can help overcome teacher resistance [to flexible delivery]... training will also support the efforts of the dedicated enthusiasts who are currently carrying much of the burden of innovation, advocacy and training themselves. (1989)

The report prepared for the Eastern Metropolitan Council of Further Education on the provision of Adult VCE and other further education programs through telematics and other alternate delivery modes recommended that

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The Regional Council support the acquisition of skills and experience in alternate delivery modes in community providers - management committees, teaching, administrative staff - as part of a regional professional development program. (1992)

Similarly in the draft report on the experiment into audiographic conferencing conducted at the Sunraysia College of TAFE the need for

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a relatively brief introduction (staff development and training) to the use of the technology for both the staff and the students [is recognised]. (1992)

Nancy Jones in her evaluation of the 1987-1988 ALBE programs recommended that

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Adequate training in the use of teleconferencing equipment and techniques be provided by all new staff running teleconferencing programs. (1988)

5.5.3 Successful Training Models

Following the successful implementation of audioconferencing as a mode of delivery for ALBE programs in Victoria, VTOCN developed a "Teleconferencing Training" program (1989). The tutor in the Wimmera Adult Literacy Group's Second Session Student Support (1991) programs took part in such a training program. She reported

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[I] used the handout notes to revise technique and procedure before commencing the sessions.

Since 1991, some ALBE practitioners in community based providers have attended Distance Education by Interactive Telematics (D.E.B.I.T.) conferences. These professional development activities, over two or two and a half days were initially presented for schools by members of the Ministry Telematics Support unit. D.E.B.I.T. conferences have two main objectives - to enable practitioners to learn how to use telematics equipment and to discover the most appropriate telematic teaching methods. This training emphasises a hands-on approach, wherever possible real-life teaching situations are duplicated.

In some instances, staff of the Ministry Telematics Support Unit conducted initial training sessions specifically for further education practitioners using the audiographic or max-fax-audio mode of delivery. One such program included

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A session introducing participants to some of the equipment used for telematics delivery of programs.
A discussion on the strategies needed to teach using alternative delivery modes.
An opportunity for hands on experience as a teacher and a learner using telematics.
The feedback from those participating was positive.

(Linking Small Groups of Learners, 1991)

Similarly in preparation for the Bright/King Valley Pilot Project (1991) a training day was held.

Participants found the day valuable as an introduction to the basic equipment operation and as a means of gaining some insight into practical teaching strategies for the "telematics classroom"

In preparation for the Wedderburn-Charlton ALBE numeracy class, the tutor, support person and the students participated in two local training days conducted by a member of the Telematics Support Unit.

- *"I found it meaningful and relevant and it provided the added advantage of allowing me to train alongside other class participants."*

A further outcome for the tutor was the ongoing support available from the officer who had conducted the local training days and the regional ALBE field worker who had also attended.

Responses from the field indicate that the training model developed for use in D.E.B.I.T. and modified in the more local, small scale training is a valuable one. This training concentrates on a hands-on approach, using audioconferencing, computers and electronic classroom software and fax machines. Other important aspects of initial training would be teaching strategies, curriculum development and the establishment of cross-sectoral support networks to promote resource sharing in areas of curriculum and technical equipment.

5.6 COST - ANALYSIS OF FLEXIBLE DELIVERY

In setting out the actual costs of flexible delivery programs it has not been possible to include a measure of effectiveness for two main reasons.

- Prior to the development of the accreditation framework and C.A.G.E. in 1992-3 there was no widely accepted instrument with which to measure the effectiveness of adult literacy teaching.

- Given the number of hours of tuition (15, 20, max.) it is unreal to expect any significant, measurable improvement in skills.

Audioconferencing

TABLE 7

Cost-Analysis of Audioconferencing Program Delivery to individual students

- This model is based on program conducted in Loddon-Mallee ACFE region, 1991.
- 7 sites were connected for 1 hour per week, for 10 weeks.
- Tutor and the six students located at Victorian Country centres.
- Audioconference costs are calculated using the Telecom Conferlink 1993 schedule of changes.
- N.B. An appropriate time allowance for curriculum development due to the innovative nature of program is included here although it was not included in the actual program costs in 1991.

7.1 Audioconference call was booked through Telecom Conferlink

Program Costs	COSTS	TOTAL
On-line costs*	10 x $182.00	$1,820.00
Tutor costs - Program Delivery	10 x 1 hour @ $23.60**	$236.00
Curriculum Development	10 x 2 hours @ $15.00	$300.00
Salary On-costs	5.9% of total salary	$31.60
Materials		$50.00
Administration of Program	10% of above	$243.76
	TOTAL PROGRAM COST	$2,681.36

COST PER STUDENT CONTACT HOUR $44.68

** Based on TAFE sessional teacher day rate. Rates at which OACFEB programs are funded will vary.

7.2 If the D.S.E's bridge at Charlton had been used for the audioconference

On-line costs
5 callers at 85-165km distance from bridge x $20.64 x (10 x 1 hour) = $1,032.00

which means a - COST SAVING OF (* 1,820 - 1,032) = $788.00

TOTAL PROGRAM COST $1,893.36

7.3 If tutor conducts face-to-face interviews prior to the program

		COST
Tutor time	15 hours x $15.00 (includes travelling time)	$225.00
Travel cost	678 kms @ 48¢	325.44
	ADDITIONAL COST TO PROGRAM	$550.44

1. On-line Costs

In the example given in table 7.1 the audioconference call is booked with the operator at Telecom's Conferlink service. The cost per line (35 cents per minute) is independent of distance but there is a $5.00 booking fee per line. There can be a considerable cost saving by using a D.S.E. telephone bridge. The D.S.E. has sixteen of these throughout Victoria. This enables students at up to 5 sites to simultaneously link with each other. A sixth person or group can participate at the site of the bridge. Costs are the standard STD telephone charges.

2. The Tyranny of Distance

- Most of the participants in 'second session' audioconferencing programs would also be working on a 1:1 basis with a volunteer tutor. Their only access to face-to-face group tuition would involve considerable travel time and cost. In the program cited above the distances travelled would be in the range of 25 kms to 206 kms. If the students in this program did not have private transport and public transport was not a feasible option the audioconferencing program would be their only realistic means of accessing group provision.
- Jones in her evaluative report on the distance literacy programs conducted in 1987 and 1988 argues that the costs need to be compared with the cost of a student starting in another distance program such as TAFE Off Campus.

The average cost per student starting the tutor education program.	**$256**	*** based on 46 students**
The average cost per student starting a traditional VTOCN semester subject.*	**$504**	
The average cost per student starting student program.	**$350**	**** based on 32 students**
The average cost per student starting a traditional VTCON semester subject.**	**$695**	

(Jones, 1988)

The teleconferencing programs were cheaper and they were effective in retaining students.

- Audioconferencing is a cost effective means of providing training and support for ALBE workers who are geographically dispersed. An example is given in "Adult Literacy and Basic Education into the 1990's", Volume 3, published by the Division of Further Education (1990).

An analysis of costs showed that in certain circumstances teleconferencing may be significantly cheaper than meeting face-to-face. The following cost comparison was based on this hypothetical situation:

* that the participant group was dispersed across the State;
* a face-to-face, one hour meeting would be held in Melbourne, with participants travelling individually by car;
* an equivalent teleconference would be of one-hour duration and held during the day.

Participants from:	Dist. return (km)	Travel cost ($)57.2c/km	Down time/ travel (hours)	Telecom Cost ($)
Kerang	534	316.20	8	23.40
Bendigo	340	179.18	4	20.00
Horsham	940	495.38	7	23.40
Warrnambool	580	305.66	7	23.40
Ballarat	480	252.96	5	20.00
Shepparton	380	200.26	6	20.00
Bairnsdale	570	300.39	8	23.40
Geelong	244	128.58	2	13.00
Benalla	400	210.80	6	23.40
TOTALS:		2389.41	53	190.00

To the Telecom costs a surcharge of $16.00 for the teleconference must be added, bringing the telecom charges to $206.00. However in such a comparison it might also be considered reasonable to add the cost of the unproductive time spent travelling: 53 hours, notionally costed at $25.00 per hour; this would amount to a further $1325.00.

Thus the comparative costs in this hypothetical situation could work out at:

Teleconference meeting	$206.66
Face-to-face meeting	$3714.41

In this situation of a one hour Statewide meeting, teleconferencing is cost effective. However, travel is not necessarily as expensive as cited above. Costs were based on the public service rate of 52.7 cents per kilometre; smaller cars are costed at a lower rate; and people may travel together or take public transport. Other costs can be incurred in teleconferencing such as detailed preparative and distribution costs.

Audiographic Conferencing

TABLE 8

Cost-Analysis of Audiographic Conferencing Program Delivery

8.1 Audiographic ALBE Numeracy program

- Based on a program conducted in the Loddon-Mallee ACFE region, 1992.
- Total of 6 students at two sites, Charlton and Wedderburn.
- 10 x 1½ hour sessions.
- Class venues were post primary schools.

PROGRAM COSTS	COSTS	TOTAL
On-line costs		
Audio link	10 x $12.24	$122.40
Visual (computer) link	8 x $12.24	$97.92
Tutor costs		
Delivery of program	10 x 1.5 hrs x $23.60	$354.00
Initial Interviews	6 hrs x $15.00	$90.00
#Curriculum Development	10 x 2 hrs x $15.00	$300.00
Travelling	64 kms @ 48¢	$30.72
Salary On-costs		$43.90
Materials		50.00
Administration of Program		108.00
	TOTAL PROGRAM COST	$1196.94
	COST PER STUDENT CONTACT HOUR	$13.30

Tutor is allowed paid time for curriculum development due to the innovative nature of the program.

8.2 Cost of delivering face-to-face ALBE Numeracy classes

PROGRAM COSTS

Tutor Cost		
Program Delivery	10 x 1.5 hrs x $23.60	$354.00
Conducting Initial Interviews	6 x $15.00	90.00
Salary On-costs	5.9%	26.00
Materials		50.00
Administration of program	10%	52.00
TOTAL PROGRAM COST		$572.00
COST PER STUDENT CONTACT HOUR		$6.30

- Conducting a telematics class which links students at two sites is more costly per student contact hour than face-to-face tuition. (Table 8.1, 8.2). However, in effect the alternative in this instance would be the absence of tuition for these students as a minimum number of students (six) was not available at either site. As in the rural schools where telematics is used as a mode of delivery, the reason for conducting a class in this manner is the small number of students at each centre.

- In the Sunraysia College of TAFE's (1992) experiment the cost of teaching a class by audiographic conferencing was economical compared to the conventional face-to-face mode.

The opportunity cost* of teaching what is likely to be taught by Audiographic Conferencing mode by conventional mode instead, demonstrates that Audiographic Conferencing mode of teaching can be used to provide a very economical alternative to the conventional mode of teaching as the operating cost is only half of the opportunity cost. If more than three sites were taught simultaneously over a larger distance, the advantage would be even greater. The other significant point which is made from this analysis is that the preparation costs are also very similar for the conventional mode and the Audiographic Conferencing mode.

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* Opportunity Cost represents the cost of a teacher teaching by classroom-based mode by actually travelling to the three sites rather than teaching at the sites simultaneously, by Audiographic Conferencing technology.

Summary of Findings of Cost-Analysis

- While the audioconferencing programs which give individual students access to group tuition can be a costly means of provision, the alternative is the absence of group provision.

- Where practicable, minimising the number of sites, as in the Wedderburn/Charlton and S.C.O.T. examples, does reduce the cost. Increasing the number of students at each site will further reduce the cost per student contact hour. A.L.B.E. classes in the sample used in this study were small (6, 10 maximum). Given the importance of encouraging interactivity during audioconferences small class size is an important element of successful flexible delivery programs.

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STUDENT INTERVIEW QUESTIONS

1. Expectations and Outcomes
   - (a) What lead you to be involved in the program?
   - (b) What did you expect before you enrolled in the program?
   - (c) (i) What were some of the outcomes from participating for you?
     - (ii) Were there any outcomes which you didn't expect?

2. Commitment required
   - (a) What extra help and support did you have
     - prior to the program?
     - during the program?

     Was it adequate?
   - (b) (i) How much time did you spend on the program each week?
     - (ii) Was it more than you anticipated?

3. Medium or Mode (questions asked as appropriate to the program)
   - (a) How did you feel about
     - (i) the teleconferences?

     or (ii) the written materials?

     or (iii) the face to face sessions?
   - (b) For teleconferences
     - (i) Was this your first experience of a teleconference?
     - (ii) Did you enjoy teleconferencing?
     - (iii) What are some of the problems? (eg. the lack of face-to-face contact)
     - (iv) What was it like being in a group with other students?

4. Teaching Strategies and Materials
   - (a) What activities worked well for you?
   - (b) Were the printed support materials adequate?
   - (c) How could the program have been improved?
   - (d) Overall, was the program useful?

     Did you enjoy it?

5. Overview
   - (a) Did you complete the program?

     If not, why not?
   - (b) Are you still enrolled?

     If not - Would you do the same again or would you like to see some changes? (give examples).
   - (c) Would you recommend the program to others? Why?

TUTORS INTERVIEW QUESTIONS

1. Objectives of the Program
   (a) Did the funding body have clear objectives?
   If so, were you involved in establishing these objectives?
   If not, how did your objectives differ?
   (b) Was there negotiation between yourself and the students as to the objectives, ie. the anticipated learning outcomes of the program?
   (c) In retrospect were they (ie. the objectives) appropriate? If not, why not? Were the needs of the learners met?

2. Prior Training and Support
   (a) Prior to the commencement of the program, what kind of support did you receive?
   (b) What extra support did you receive during the program?
   (c) What additional support would have been helpful?
   (d) What resources were essential, what else would have been valuable?

3. Time
   (a) How much time did you spend on the program?
   How much was unpaid time?
   (b) Was the program more of a time commitment than you had anticipated?
   If so, what took up the extra time?
   (c) If you did it again, in planning the program, how much more time would you allocate?
   What would be an appropriate amount of paid time for the tutor of this program?

4. Medium or Mode (Questions asked as appropriate to the program)
   (a) What were the student's reactions to:
   (i) the teleconferences
   or (ii) the written materials
   or (iii) the face to face sessions.
   (b) What did you do to try to overcome the lack of face-to-face contact?
   (c) How was the teaching of this program different from the traditional face-to-face class?
   (d) For teleconferencing class
   (i) How did the group cope with silences?
   (ii) How well did the group interact, with each other?
   (iii) Was it necessary to have further contact with individual students (or their 1:1 tutors), between teleconferences, why?
   (e) If students left the program before its completion, what reasons did they give for their exit?

5. Teaching Strategies and Materials

(a) Overall, which strategies worked best during the program?

(b) How could they have worked better?

(c) Of the materials you used, which did you have to develop yourself?

6. Overview

Would you be interested in running a similar program in the future?
If YES, would you use the same format as last time or change it?
If NOT, why not?

A.L.B.E. PROVISION IN VICTORIA, 1991

ENROLMENTS

PROVIDER	STUDENT Nos	STUDENT CONTACT HOURS
#Community Based Providers	10,752	483,242
*TAFE	7,933	890,714
Council of Adult Education	927	78,737

TOTAL ENROLMENT 19,612

\# No figures available which indicate the number of students in programs delivered in a flexible mode.

* These figures include Off-Campus provision in the following Access and Bridging subjects -

	Student numbers
Arithmetic	77
Beginning English	77
Distance Literacy and Telemaths	8
Road Rules	4
Help Yourself to Spell	133
Preliminary English/Year 10 Maths	297
TOTAL STUDENTS	596

OACFEB Statistics, 1991

CASE STUDY

ALBE Audiographic Conferencing Numeracy Program

* In 1992 an ALBE numeracy program was delivered to two small groups of students at Charlton and Wedderburn in the OACFEB Loddon Mallee Region, over 10 weeks.

This case study is based on the actual time commitment of the tutor at Charlton and the volunteer support person at Wedderburn.

	Time (Hours)	Distance Travelled (kms)
1. Tutor		
Attendance at Geelong D.E.B.I.T. conference.	22	530
Local small scale training workshops at Wedderburn.	10	132
Setting up Program		
- Conducting Initial Interviews	6	
- Liaison with School	1	
- Program Delivery 10 x 1½ hours	15	
Curriculum Development	20	
Total hrs 74*		Total kms 662#
2. Voluntary Support Person		
Attendance local small scale training workshops.	9	
Attendance at first 3 classes.	6	
Liaison with school re use of facilities.	1	
Total Hours	16	

* Of this only 27 hours were paid time.
\# Travel costs are reimbursed.

ACFEB (DFE)/OSTB COMMONWEALTH ADULT LITERACY PROGRAM 1991, RESEARCH PROJECTS

PROPOSED ACTION RESEARCH PROJECT RE. FLEXIBLE DELIVERY OF ADULT LITERACY

BACKGROUND

This proposal is a requirement of the Research Project: Proposal 3 : Flexible Delivery of Adult Literacy which was awarded to the Loddon Campaspe College of TAFE in late 1991.

Papers circulated on 27/8/91 included the directive:

"This proposal will initiate a series of linked research projects over a three year period to clarify the relative cost effectiveness of different methods of providing literacy programs particularly in the context of expanding workplace provision.

Attachment No.2 of our original proposal provided the following additional detail.

"It is seen to be important that the project and its parameters focus on the needs of those who are severely disadvantaged by distance and geographical isolation and is within the financial reach of the depressed rural sector. In other words, cost and accessibility must be included as key criteria against which the project is to be measured.

TITLE OF PROPOSED PROJECT

Linking individuals with similar needs.

CONTEXT OF PROPOSED PROJECT

The reference group which has managed the Flexible Delivery of Adult Literacy project believes that while research into adult literacy is vital it depends upon the actual provision of adult literacy programs using a flexible mode.

This belief has led the group to propose a project which requires, as an initial step, an expansion of delivery of such programs. We also believe that while geographical isolation is a major factor, isolation resulting from physical disability, family commitments etc. or as a result of personal choice or preference are also important and need to be kept in mind.

Finally, the group believes that the present project has clearly identified the "relative cost effectiveness of different methods of providing literacy programs..." and therefore that the proposed project need not concentrate exclusively on this requirement.

PROJECT AIM

To use the concept and processes of action research to initiate:

(i) a method of providing small group tuition and interaction by linking individuals from any workplace in Victoria with others of the same ABEC level, interests and needs

(ii) provide a number of such "interactions"

(iii) monitor this provision.

TARGET GROUP

Isolated adult literacy students across Victoria.

OUTCOMES (in no particular sequence and needing more work)

1. A report detailing the various stages, elements and findings of the action research. This will be based on detailed interviews with tutors and participants who have been involved in the "linking" exercise.

2. Recommendations on the most effective and efficient methods of establishing workable and productive links between students and between students and tutors.

3. Recommendations on any system, method or technology which can be used to facilitate and manage (or track) such links.

4. Performance indicators for the purpose of evaluation.

TIMELINE

Papers (27/8/91) requested "linked projects over a three year period".

PROJECT COST

$300,000.00